

CLAIMS

What is claimed is:

1. A multimedia user interface for a computer based automated hearing test,  
comprising:  
5 a patient information component configured to allow an operator or a patient to enter  
the patient's information into the automated hearing test;  
a patient testing component configured to allow the patient to interact with the  
automated hearing test during a hearing related test; and  
a reporting component configured to present a result of the patient's hearing test.  
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2. The multimedia user interface of claim 1, wherein the patient information  
component comprises a new session screen for entering basic information about the patient.
3. The multimedia user interface of claim 2, wherein the basic information  
15 includes patient name, patient chart number, and patient testing language.
4. The multimedia user interface of claim 2, wherein the new session screen  
includes a list of hearing related tests that may be selected.
- 20 5. The multimedia user interface of claim 1, wherein the patient testing  
component comprises a pure tone threshold response screen for allowing the patient to  
respond during a pure tone threshold test.

6. The multimedia user interface of claim 5, wherein the pure tone threshold response screen includes an on-screen button which the patient may press in response to hearing a tone.

5           7. The multimedia user interface of claim 1, wherein the patient testing component comprises a speech reception threshold response screen allowing the patient to respond during a speech reception threshold test.

8. The multimedia user interface of claim 7, wherein the speech reception  
10 threshold response screen includes a set of picture-word pairs from which the patient may select one picture-word pair during the speech reception threshold test.

9. The multimedia user interface of claim 1, wherein the patient testing component comprises a speech discrimination response screen for allowing the patient to  
15 respond during a speech discrimination test.

10. The multimedia user interface of claim 9, wherein the speech discrimination response screen includes multiple sets of picture-word pairs that are randomly presented one set at a time from which the patient may select one picture-word pair in response to hearing  
20 a word.

11. The multimedia user interface of claim 1, wherein the patient testing component comprises a tympanogram, acoustic reflex, and otoacoustic emission test screen for performing tympanogram, acoustic reflex, and otoacoustic emission testing.

5           12. The multimedia user interface of claim 1, wherein the patient testing component comprises a patient survey screen for gathering hearing related information about the patient.

10           13. The multimedia user interface of claim 1, wherein the reporting component comprises a report screen for displaying a report of the result of the patient's hearing test, including relevant data therefor.

15           14. The multimedia user interface of claim 13, wherein the report screen can be viewed as a web page using a web browser.

            15. The multimedia user interface of claim 13, wherein the web page of the report can be accessed from a network connection.

20           16. The multimedia user interface of claim 13, wherein the report screen allows the report to be changed from a one-chart format to a two-chart format and vice versa.

            17. The multimedia user interface of claim 13, wherein the report screen allows the report to be printed on a one-page printout.

18. The multimedia user interface of claim 13, wherein the reporting component further comprises a search screen for searching previously saved reports based on one or more search parameters.

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19. The multimedia user interface of claim 18, wherein the reporting component further comprises a results screen for listing previously saved reports that satisfy the one or more search parameters.

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20. The multimedia user interface of claim 18, wherein the reporting component further comprises a comparison screen for displaying a comparison of two reports, the comparison showing a recent report more prominently than an older report.

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21. The multimedia user interface of claim 1, further comprising a patient training component configured to instruct the patient regarding operation of the automated hearing test.

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22. The multimedia user interface of claim 21, wherein the patient training component comprises one or more screens for providing general information regarding the operation of the automated hearing test and one or more verbal information messages for each screen.

23. The multimedia user interface of claim 21, wherein the patient training component comprises one or more screens for providing specific information regarding one or more hearing related tests of the automated hearing test and one or more verbal information messages for each screen.

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24. The multimedia user interface of claim 1, further comprising a patient management component configured to manage the patient during the automated hearing test.

25. The multimedia user interface of claim 24, wherein the patient management  
10 component comprises one or more warning messages for warning the patient of problems during the automated hearing test.

26. The multimedia user interface of claim 24, wherein the patient management  
15 component comprises a progress indicator for indicating a progress of the patient during the automated hearing test.

27. The multimedia user interface of claim 1, further comprising a system  
configuration component configured to allow the operator to configure the automated  
hearing test.

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28. The multimedia user interface of claim 27, wherein the system configuration component comprises an input screen for inputting default information into the automated hearing test that can be used for all patients.

29. The multimedia user interface of claim 27, wherein the system configuration component comprises a paging encoder screen for inputting paging encoder information into the automated hearing test that can be used for all patients.

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30. The multimedia user interface of claim 27, wherein the system configuration component comprises a paging options screen for defining one or more events for which the automated hearing test will page the operator.

10 31. The multimedia user interface of claim 27, wherein the system configuration component comprises a test options screen for defining a name of each hearing related test performed by the automated hearing test.

32. A computer-based automated hearing test, comprising:  
15 a display screen;  
a transducer; and  
a computer, said computer executing an automated hearing test thereon, said automated hearing test having a multimedia user interface configured to use the display screen and the transducer, said multimedia user interface comprising:

20 a system configuration component configured to allow an operator to configure the automated hearing test;

a patient information component configured to allow the operator or a patient to enter the patient's information to be entered into the automated hearing test;

a patient testing component configured to allow the patient to interact with the automated hearing test during a hearing related test; and

a reporting component configured to present a result of the patient's hearing test.

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33. The computer-based automated hearing test of claim 32, wherein the system configuration component comprises a computer identification screen for defining an identity of the computer, and a network options screen setting up the computer to be connected to a network.

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34. The computer-based automated hearing test of claim 32, wherein the system configuration component comprises an input screen for inputting default information into the automated hearing test that can be used for all patients, and test options screen for defining a name of each hearing related test performed by the automated hearing test.

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35. The computer-based automated hearing test of claim 32, wherein the system configuration component comprises a paging encoder screen for inputting paging encoder information into the automated hearing test that can be used for all patients, and a paging options screen for defining one or more events for which the automated hearing test will page the operator.

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36. The computer-based automated hearing test of claim 32, wherein the patient information component comprises a new session screen for entering basic information about

the patient, including patient name, patient chart number, and patient testing language, the new session screen including a list of hearing related tests that may be selected.

37. The computer-based automated hearing test of claim 32, wherein the patient  
5 testing component comprises a pure tone threshold response screen for allowing the patient to respond during a pure tone threshold test, the pure tone threshold response screen including an on-screen button which the patient may press in response to hearing a tone.

38. The computer-based automated hearing test of claim 32, wherein the patient  
10 testing component comprises a speech reception threshold response screen allowing the patient to respond during a speech reception threshold test, the speech reception threshold response screen including a set of picture-word pairs from which the patient may select one picture-word pair during the speech reception threshold test.

15 39. The computer-based automated hearing test of claim 32, wherein the patient testing component comprises a speech discrimination response screen for allowing the patient to respond during a speech discrimination test, the speech discrimination response screen including multiple sets of picture-word pairs that are randomly presented one set at a time from which the patient may select one picture-word pair in response to hearing a word.

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40. The computer-based automated hearing test of claim 32, wherein the patient testing component comprises a tympanogram, acoustic reflex, and otoacoustic emission test



screen for performing tympanogram, acoustic reflex, and otoacoustic emission testing, and a patient survey for gather hearing related information about the patient.

41. The computer-based automated hearing test of claim 32, wherein the  
5 reporting component comprises a report screen for displaying a report of the result of the patient's hearing test, including relevant data therefor, said report screen allowing the report to be changed from a one-chart format to a two-chart format and vice versa.

42. The computer-based automated hearing test of claim 41, wherein the  
10 computer functions as a web server and the report screen can be viewed as a web page using a web browser and a network connection.

43. The computer-based automated hearing test of claim 41, wherein the report  
screen allows the report to be printed on a one-page printout.

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44. The computer-based automated hearing test of claim 41, wherein the reporting component further comprises a search screen for searching previously saved reports based on one or more search parameters, and a results screen for listing previously saved reports that satisfy the one or more search parameters.

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45. The computer-based automated hearing test of claim 41, wherein the reporting component further comprises a comparison screen for displaying a comparison of two reports, the comparison showing a recent report more prominently than an older report.

46. The computer-based automated hearing test of claim 32, further comprising a patient training component configured to instruct the patient regarding operation of the automated hearing test.

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47. The computer-based automated hearing test of claim 46, wherein the patient training component comprises one or more screens for providing general information regarding the operation of the automated hearing test and specific information regarding one or more hearing related tests, including one or more verbal information messages for each screen.

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48. The computer-based automated hearing test of claim 32, further comprising a patient management component configured to manage the patient during the automated hearing test.

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49. The computer-based automated hearing test of claim 48, wherein the patient management component comprises one or more warning messages for warning the patient of problems during the automated hearing test, and a progress indicator for indicating a progress of the patient during the automated hearing test.

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50. A multimedia user interface for a computer based automated hearing test, comprising:

a patient information component configured to allow an operator or a patient to enter the patient's information into the automated hearing test;

a system configuration component configured to allow an operator to configure the automated hearing test;

5           a tympanogram/acoustic reflex component configured to allow the operator to obtain a tympanogram and acoustic reflex measurement for the patient;

a patient training component configured to instruct the patient regarding operation of the automated hearing test;

10           a patient testing component configured to allow the patient to interact with the automated hearing test during a hearing related test;

a patient management component configured to manage the patient during the automated hearing test; and

a reporting component configured to present a result of the patient's hearing test.